network interconnecting all Air Force Bases and naval air stations that need messages about aircraft movements. AIRCOM is the equivalent of the Naval Communications Complex.

Air Force Communications bear the same relationship to Naval Communications as described previously for Army Communications.

ALLIED COMMUNICATIONS

The U.S. is a member of, or associated with, many international alliances whose agreements affect communications and are binding upon the services. These international military groups include the NATO Military Committee, CANUKUS; the Inter-American Defense Board (IADB); the SEATO (Southeast Asia Treaty Organization); and the CENTO (Central Treaty Organization). U.S. participation as a member or observer in the deliberations of the military communication agencies of these international bodies is usually provided through the USMCEB machinery. The USMCEB organization then makes known to the services agreements reached which may affect U.S. military communications. Frequency matters, however, are a special case, and are discussed separately in the following chapter.

With worldwide cooperation between friendly nations and the United States, the need arose again for coordinated and standardized communications on an Allied basis. To meet this need, Allied Communication Publications (ACPs) were promulgated. The ACP series provides communication instructions and procedures essential to conducting combined military operations and communications in which two or more Allied Nations are involved. Your work in communications often requires familiarity with many of the ACPs. Chapter 14 of this manual discusses communication publications in more detail.

Extract from:
Communications Technician O 3&2
Rate Training Manual

CHAPTER 5

COMMUNICATION BASICS

Every naval command afloat and ashore is assigned a mission and supporting tasks that may vary from combat operations to support of the fighting forces. In each case the communication requirements of the command are derived from its mission and tasks.

In order to ensure maximum contribution to the mission of the command, the communicator should possess an understanding of the communication facilities he uses. Communication equipment today is becoming increasingly more complex and, although you will not be required to qualify as a specialist in electronics, you should be familiar with the communication methods, principles of operation, and the limitations and capabilities of selected systems used in communicating between distant points.

The objective of this chapter is to present certain basic concepts in communications in which the communicator should be, at a minimum, aware and conversant. The subject of communication theory and the functioning of specific types of equipment will be discussed later in this manual. The information presented in this chapter will provide a basis for understanding these subjects.

TELECOMMUNICATIONS

The term telecommunication refers to communication over a distance and includes any transmission, emission, or reception of signs, signals, writings, images, and sounds; or intelligence of any nature by visual means, oral means, wire radio, or other electromagnetic systems. Telecommunications used in the Navy are of three types: electrical, visual and sound.

ELECTRICAL

The means of communicating electrically are by radio and wire. The former uses electromagnetic waves not guided by a physical path between sender and receiver, whereas wire uses electromagnetic waves carried by electrical conductors that connect the sending and receiving equipments.

Radio is the Navy's most important effective means by which the activities of widespread naval forces can be continuously coordinated.

Radiotelegraph – Usually called: MANUAL MORSE

Radiotelegraph (continuous wave or CW telegraphy) is a system for transmitting signals by using a wave of radiofrequency (r-f) energy. The radio operator separates the continuously transmitted wave into dots and dashes, based on the Morse code, by opening and closing a telegraphic handkey.

Radio telegraphy was the first means of radio communication of military and commercial importance. Although there have been many advances in the field of radio since Marconi succeeded in sending his first "wireless" message, radiotelegraph still is used as a means of communication to, from, and among widely separated units of the Navy.

The relatively slow speed of transmission and the requirement for many experienced operators are the major disadvantages of radiotelegraph. The main advantage is reliability. The need for a thinking person at both sending and receiving stations provides a degree of intelligibility not present in automated systems.